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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/537,546	03/30/2000	Knut Beneke	31659-157399	7765

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VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP
P.O. BOX 34385
WASHINGTON, DC 20043-9998

EXAMINER

LE, BRIAN Q

ART UNIT PAPER NUMBER

2623

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/537,546

Applicant(s)

BENEKE, KNUT

Examiner

Brian Q Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 7-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Amendment and Arguments

1. Applicant's amendment filed April 08, 2004, has been entered and made of record.
2. Regarding the interview on March 05, 2004, the Examiners (including Mr. Brian Le and Dr. Ahmed Samir) did not indicate the including of a "performing a coordinate comparison" would be able to overcome the rejections. The Examiners indicated that the Applicant must need to clearly illustrate how a coordinate is used (step by step in using the coordinate system with respect to the claimed limitations) in claim, which may overcome the rejection of claim 1. The Examiners also indicated that further search is definitely needed to ensure the limitation is novel.
3. The rejection of claims 1, 3, and 7 under 35 U.S.C 103(a) as being unpatentable over U.S. Patent No. 5,838,758 to Krug and U.S. Patent No. 6,230,174 to Berger is withdrawn.
4. Applicant's arguments with regard to claims 1, 3, and 7-8 have been fully considered, but are not considered persuasive because of the following reasons:

For claim 1, the Applicant argues (on page 6) that both Hiraoglu and Krug do not teach the limitation of "performing a coordinate comparison to identify mutually facing sides of two adjoining individual markings. The Examiner respectfully disagrees. Hiraoglu clearly teaches this concept at (i, j, k coordinates are used in the comparing of voxel and markings) (FIG. 10; column 15, lines 55-67 and column 16, lines 1-6). Also, the Applicant argues that Hiraoglu does not teach determining a ratio of an overlapping area of said two adjoining individual markings to the total area of at least one of said two adjoining individual markings. As indicated in the previous Office Action, the Examiner used Krug instead of Hiraoglu for the teaching of this limitation.

Thus, the rejections of all of the claims are maintained.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraoglu U.S. Patent No. 6,272,230 and Krug U.S. Patent No. 5,838,758.

Referring to claim 1, Hiraoglu teaches a method of processing an X-ray image of articles (tomography) (Abstract) contained in a transilluminated object and made visible (baggage scanning system inherently transilluminate objects and make them visible) (column 6, lines 25-32) for an observer on a monitor screen (computer) (FIG. 4, "EDA Computer"), comprising the following steps:

(a) placing individual markings about the image or certain, previously determined articles (pixels are being marked from the computation of region of interest and boundary box) (FIG. 6, element 314; FIG. 8A-8B; FIG. 11; column 19, lines 15-20; column 20, lines 40-41; column 22, lines 60-64);

(b) automatically (a computer software processing will process automatically) and stepwise combining the individual markings into a final added marking if at least two individual markings mutually fit (FIG. 9, steps 342-346; column 29, lines 1-35; column 31, lines 52-57); said combining step comprises the steps of

(1) Performing a coordinate (i, j, k coordinates are used in the comparing of voxel and markings) (FIG. 10; column 15, lines 55-67 and column 16, lines 1-6) comparison to identify

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mutually facing sides of two adjoining individual markings (to check if the objects satisfy the criterion before merging) (column 31, lines 52-67 and column 32, lines 1-25); and Hiraoglu does not clearly teaches the concept of determining a ratio of an overlapping area of said two adjoining individual markings to the total area of at least one of said two adjoining individual markings. Krug teaches a method of processing X-ray image of articles (Abstract) that determining a ratio of overlapping area of adjoining individual markings (FIG. 19, elements 2060 and 2070 and column 4, lines 15-31).

Modifying Hiraoglu's method of method of processing an X-ray image of articles according to Krug will provide the ability to assign the selected areas with the appropriate probability for the presence of different object in the vicinity and/or neighborhood (column 6, lines 17-25). This would improve processing e.g. allow enhanced detection of objects more accurately and therefore, it would have been obvious to one of the ordinary skill in the art to modify Hiraoglu according to Krug.

Referring to claim 2, Krug teaches the method wherein said comparing step comprises the step of comparing lengths and positions of said facing sides (column 6, lines 14-18).

For claim 3, Krug further teaches the method wherein said step of determining a ratio comprises the step of determining a ratio of said overlapping area of said two adjoining individual markings with the total area of one of said two adjoining individual markings (FIG. 4, column 5, lines 20-32; column 3, lines 1-22; and column 4, lines 15-32).

Referring to claim 7, Hiraoglu teaches the method wherein said comparing and determining steps include the steps of comparing coordinates in which said individual and individual added markings are positioned (column 20, lines 10-23 and column 25, lines 60-67).

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Regarding claim 8, Hiraoglu teaches the method wherein the individual markings are respective rectangles surrounding the image of a respective article (FIG. 8A-8B).

For claim 9, Hiraoglu further teaches a monitor screen (column 15, lines 1-5) display individual markings (FIG. 8A, FIG. 8B and column 21).

For claim 10, Krug teaches the method wherein the transilluminated objects are transilluminated baggage objects (different energies show on the X-ray to different material such as baggage objects due to the material difference in photoelectric effect scattering characteristics) (abstract).

Allowable Subject Matter

7. Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

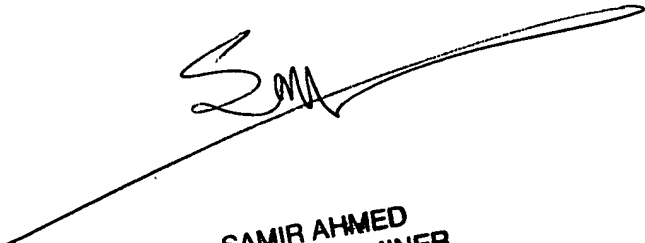
Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q Le whose telephone number is 703-305-5083. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

BL
May 27, 2004



SAMIR AHMED
PRIMARY EXAMINER